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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,083	03/01/2002	Farhad Farassat	MEISS69.001AUS	4257

20995 7590 03/25/2003

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EXAMINER	
EDMONDSON, LYNNE RENEE	
ART UNIT	**PAPER NUMBER**
1725	8

DATE MAILED: 03/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-8

Office Action Summary	Application No.	Applicant(s)	
	10/090,083	FARASSAT, FARHAD	
	Examiner	Art Unit	
	Lynne Edmondson	1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 March 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 March 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 12-17are rejected under 35 U.S.C. 102(b) as being anticipated by Cray et al. (USPN 5195237).

Cray teaches a method of testing wire bond connections between a bonded wire and a pad (col 1 lines 21-39 and col 4 lines 5-25) formed in the conventional manner of heat or ultrasound (col 4 lines 22-25). Wherein the method comprises lifting the bonding head after bond formation, gripping the wire with a clamp (108) and raising the wire through a second distance during which process the force on the wire is detected (col 6 lines 5-29 and figure 2).

3. Claims 1-6, 8-27, 29 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Kelly (USPN 5894981).

Kelly teaches a method of testing wire bond connections between a bonded wire and a pad on an electronic device (col 1 lines 5-12) formed in the conventional manner

of heat or ultrasound (col 3 lines 16-26). Wherein the method comprises lifting the bonding head after bond formation, gripping the wire with a clamp (24) and raising the wire through a second distance during which process the force on the wire is detected (col 4 lines 46-59, col 6 lines 16-22 and col 8 lines 1-42). Distances and forces are calculated over time by a computer program (col 6 lines 22-46). The testing arrangement is integrated into the bonding head (figure 3 and col 4 lines 21-28). The bonding head comprises a tool holder, transducer holder, wire clamp holder, drive mechanism for vertical displacement of the bonding head and tool holder (col 4 lines 40-59) and a program control system for controlling movement and taking measurements (col 6 lines 22-46 and col 9 lines 47-64). The wire clamp holder is mounted to the bonding head such that is can be easily deflected against a pre-tensioning element (flexible cantilever or spring) and has a strain gage for force measurement (col 1 lines 22-30 and col 7 lines 18-33). The bond head can be linearly displaced (col 4 lines 29-45). An intact state is detected during the process (col 8 lines 55-65). See also Kelly claims 1-5, 7-10 and 14-23.

4. Claims 1-5, 8-10, 12-26, 29 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Price et al. (USPN 5591920).

Price teaches a method of testing wire bond connections between a bonded wire and a pad on an electronic device (col 1 lines 36-40) formed in the conventional manner of heat or ultrasound. Wherein the method comprises lifting the bonding head after bond formation, gripping the wire with a clamp (19) and raising the wire through a

second distance during which process the force on the wire is detected (col 2 lines 25-40, col 3 lines 15-45 and col 4 lines 37-63). Distances and forces are calculated over time by a computer program (col 2 lines 33-40 and col 4 lines 1-36). The testing arrangement is integrated into the bonding head (figure 1). The bonding head comprises a tool holder, transducer holder, wire clamp holder, drive mechanism for vertical displacement of the bonding head and tool holder (col 3 lines 15-22) and a program control system for controlling movement and taking measurements (col 1 line 60 – col 2 line 3, col 5 lines 14-67 and col 8 lines 38-42). An intact state is detected during the process (col 4 lines 64-67). See also Price claims 1-17.

5. Claims 1, 4-7, 10 and 21-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Ringler (USPN 6439448 B1).

Ringler teaches a method of testing wire bond connections between a bonded wire and a surface on an electronic device formed in the conventional manner of heat or ultrasound (col 1 lines 10-15). Wherein the method comprises lifting the bonding head after bond formation, gripping the wire with a clamp (60) and raising the wire through a second distance during which process the force on the wire is detected (col 4 lines 44-59 and col 8 lines 3-32). The testing arrangement is integrated into the bonding head (figure 2). The bonding head comprises a tool holder, transducer holder, wire clamp holder, drive mechanism for vertical displacement of the bonding head and tool holder (figure 2 and col 4 lines 1-18) and a program control system for controlling movement (col 2 lines 19-33 and col 3 lines 5-10). The wire clamp holder is mounted to the

bonding head such that is can be easily deflected against a pre-tensioning element (flexure, 50, 250) with a piezoelectric stack for force measurement (col 4 lines 44-53) and a leaf spring (col 8 lines 33-37).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nishimaki et al. (USPN 5566876), LaValle (USPN 3724265), Steranko (USPN 4272007), Salzer et al. (USPN 4373653), Farrassat (USPN 4878609), and Uthe et al. (USPN 4815001).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynne Edmondson whose telephone number is (703) 306-5699. The examiner can normally be reached on M-F from 7-4 with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (703) 308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-7115 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

Lynne Edmondson
Examiner
Art Unit 1725

3/20/03

LRE
March 20, 2003